

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Patent Application No.: 10/690,829

Q78184

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (previously presented): A method of manufacturing surge arrestors, the method comprising the steps of:

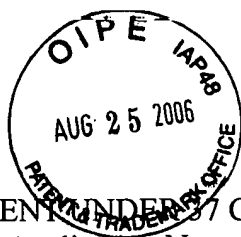
making a stack of varistors such that the varistors touch each other; and

forming a coating of composite material on the stack of varistors;

wherein, between the steps of making the stack and forming the coating of composite material, the method includes the step of depositing a bead of flexible, adhesive, and dielectric material on the previously-formed stack at interfaces between each adjacent pair of varistors where the varistors touch each other.

2. (currently amended): A method according to claim 1, wherein the beads of flexible, adhesive, and dielectric material are made ~~on the basis of~~ at least one of an elastomer, ~~or a gel,~~ preferably of and a silicone material.

3. (previously presented): A method according to claim 1, wherein the material constituting the beads is adapted to eliminate all pockets of air from the interfaces between each adjacent pair of varistors, to prevent material penetrating into said interfaces, and to provide elastic bonding between the stack of varistors and the coating of composite material.



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4. (previously presented): A method according to claim 1, wherein each bead has a typical width of 5 mm and a thickness of less than 5 mm.
5. (previously presented): A method according to claim 1, wherein the material constituting the beads has no acetic acid.
6. (previously presented): A method according to claim 1, further comprising the steps of depositing an outer envelope on the coating of composite material and using said outer envelope as a mold for shaping the body of the arrestor by a radial compression effect during a polymerization step.
7. (previously presented): A method according to claim 6, wherein the outer envelope possesses annular fins.
8. (currently amended): A method according to claim ~~16~~, further comprising the step of depositing beads of adhesive/sealing agent on the coating of composite material prior to installing the outer envelope.
9. (previously presented): A method according to claim 8, wherein the beads of adhesive/sealing agent deposited on the coating of composite material are made of silicone mastic.
10. (previously presented): A method according to claim 8, wherein the beads of adhesive/sealing agent deposited on the coating of composite material are shaped as rings.

11. (previously presented): A method according to claim 1, wherein the coating of composite material is wound helically.

12. (previously presented): A method according to claim 1, wherein the coating of composite material is made by helically winding a preimpregnated woven tape with overlap of 50%.

13. (previously presented): A method according to claim 1, wherein the coating of composite material has rings of preimpregnated woven tape deposited in register with the interfaces between adjacent pairs of varistors.

14. (currently amended): A method according to claim 13, wherein the arrestor also has an envelope deposited on the coating of composite material to reinforce ~~the~~ dielectric behavior of the arrestor.

15. (previously presented): A method according to claim 1, wherein the coating of composite material based on glass fibers and epoxy resin, has a resin content lying in the range one-third to one-half by weight.

16. (previously presented): A method according to claim 1, wherein the coating of composite material is made under axial compression of the stack of varistors.

17. (previously presented): A method according to claim 1, wherein the varistors are not enameled.

18. (previously presented): A method according to claim 1, wherein the varistors are coated in a fine protective film of a lead-free enamel.

19. (previously presented): A surge arrestor comprising a stack of varistors and a coating of composite material, the arrestor further comprising beads of flexible, adhesive, and dielectric material in register with the various interfaces between each adjacent pair of varistors.

20. (previously presented): An arrestor according to claim 19, wherein the beads of flexible, adhesive, and dielectric material are based on silicone material.

21. (previously presented): An arrestor according to claim 19, further comprising an outer envelope having annular fins.

22. (previously presented): An arrestor according to claim 1, further comprising beads of an adhesive/sealing agent between the coating of composite material and an outer envelope.

23. (previously presented): An arrestor according to claim 22, wherein the beads of adhesive/sealing agent deposited on the coating of composite material are made of silicone mastic.

24. (previously presented): An arrestor according to claim 1, wherein the coating of composite material is made by helically winding a preimpregnated woven tape with overlap of 50%.

25. (previously presented): An arrestor according to claim 1, wherein the coating of composite material has a resin content lying in the range one-third to one-half by weight.

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26. (previously presented): An arrestor according to claim 1, wherein the varistors are not enameled.

27. (previously presented): An arrestor according to claim 1, wherein the varistors are coated in a fine protective film of lead-free enamel.